

MAY 6 1994

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

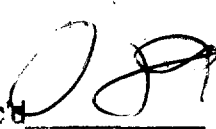
In the Matter of )  
 )  
Amendment of the Commission's ) CC Docket No. 92-166  
Rules to Establish Rules and Policies )  
Pertaining to a Mobile Satellite )  
Service in the 1610-1626.5/2483.5- )  
2500 MHz Frequency Bands )

To: The Commission

**MOTION TO ACCEPT LATE FILED JOINT COMMENTS OF THE  
ASSOCIATION OF AMERICA'S PUBLIC TELEVISION STATIONS AND  
PUBLIC BROADCASTING SERVICE**

The Association of America's Public Television Stations ("APTS") and Public Broadcasting Service ("PBS") (hereinafter "Public Television") hereby move the Commission to accept the attached late filed joint comments in response to the Commission's Notice of Proposed Rulemaking, CC Docket No. 92-166, released February 18, 1994 ("NPRM"). The Commission's NPRM proposes rules and policies to govern low earth orbit mobile satellite services in above 1 GHz frequency bands ("MSS Above 1 GHz").

Public Television requests the Commission to accept and fully consider the attached comments filed on May 6, 1994, one day after the comment deadline of May 5, 1994. Public Television was unable to complete and file the comments by the deadline because the offices of America's Public Television Stations, where the comments were being finalized, were evacuated on afternoon of May 5 because of a bomb scare. Unfortunately due to the loss of an almost two-hour period, immediately before the comment deadline, APTS was unable to complete the comments for filing.

No. of Copies rec'd   
List A B C D E

Public television believes that it is just such emergency situations, which are completely out of the control of the parties, that warrant the acceptance and consideration of late filed comments by the Commission.

Respectfully submitted,

ASSOCIATION OF AMERICA'S PUBLIC  
TELEVISION STATIONS

By: Marilyn Mohrman-Gillis  
Marilyn Mohrman-Gillis  
General Counsel  
Lonna M. Thompson  
1350 Connecticut Avenue, N.W.  
Suite 200  
Washington, D.C. 20036  
(202) 887-1700

Paula A. Jameson (mm-6)  
Paula A. Jameson  
General Counsel  
Gregory Ferenbach  
Assistant General Counsel  
PUBLIC BROADCASTING SERVICE  
1320 Braddock Place  
Alexandria, Virginia 22314  
(703) 739-5063

Dated: May 5, 1994

## Table of Contents

Summary of Argument.....	1
I. POTENTIAL USES BY PUBLIC BROADCASTING OF MSS ABOVE 1 GHz.....	3
A. Educational Applications.....	3
B. Other Public Telecommunications Applications.....	5
C. Need for Lower Cost “Last Mile” Connectivity .....	6
II. PREFERRED ACCESS TO MSS ABOVE 1 GHz WOULD BE CONSISTENT WITH ESTABLISHED CONGRESSIONAL AND COMMISSION POLICIES .....	6
A. Congress Has Determined That Access To Public Telecommunications Programming Serves A Compelling Interest.....	6
1. The Public Telecommunications Act of 1992 .....	6
2. The Public Broadcasting Act of 1967 And Its Progeny.....	8
3. The Cable Television Consumer Protection and Competition Act of 1992 and Other Statutes .....	9
B. Access to Public Telecommunications Services Is Also Supported by Commission Policy.....	10
III. CONCLUSION.....	12

## SUMMARY

The Association of America's Public Television Stations ("APTS") and Public Broadcasting Service ("PBS") (hereinafter "Public Television") commend the Commission for its recognition of the need for special rules to provide for access for nonprofit educational services on new technologies such as the proposed low earth orbital satellite services. Public Television encourages the Commission to adopt rules that would allow public broadcasters and other nonprofit organizations to utilize a portion of the in-orbit system capacity at no charge or at incremental cost-based rates for noncommercial educational services.

Technologies, such as MSS Above 1 GHz, have the potential for extending the reach of public television's interactive educational services. It can be used, for example, to expand public television's interactive distance learning services by providing that necessary interactive link to classrooms that cannot be easily or economically wired. It can also be used for that critical "last mile" connection to public television's new nationwide on-line computer network that will link students and teachers throughout the country to a wide range of noncommercial educational services. The proposed MSS Above 1 GHz services could be particularly important in connecting schools, libraries, other community institutions and homes in locations in which alternative voice and data communications services are not feasible, too costly, or not technologically capable of carrying high speed transmission.

Establishing rules that would allow public broadcasters to use a portion of the capacity on a preferred rate basis for noncommercial educational services would be consistent with long-standing Congressional and Commission policies guaranteeing the American public access to such services.

In the Matter of )  
 )  
 Amendment of the Commission's ) CC Docket No. 92-166  
 Rules to Establish Rules and Policies )  
 Pertaining to a Mobile Satellite )  
 Service in the 1610-1626.5/2483.5- )  
 2500 MHz Frequency Bands )

**JOINT COMMENTS OF THE ASSOCIATION OF AMERICA'S PUBLIC  
TELEVISION STATIONS AND PUBLIC BROADCASTING SERVICE**

APTS is a private, nonprofit membership organization whose members include virtually all of the nation's public television stations. APTS engages in planning, research and legislative and policy representational activities on behalf of its member stations.

Public Television responds to the Commission's question as to whether it should require an MSS Above 1 GHz licensee "to offer a specific

percentage of its in-orbit system capacity to nonprofit organizations for purposes such as environmental monitoring or education” (NPRM, ¶ 87). Public Television encourages the Commission to adopt rules that would allow public broadcasters and other nonprofit organizations to utilize a portion of the in-orbit system capacity at no charge or at incremental cost-based rates for noncommercial educational services.

As the Commission recognized in its NPRM, MSS Above 1 GHz services have the potential for educational and public service uses both on a nationwide and global level. As discussed herein, public television stations currently offer instructional services and community public services that continuously are being expanded through development of new technologies. MSS Above 1 GHz is one of a number of wireless technologies that offer opportunities for expanding the interactive capabilities of the noncommercial educational services offered by public television. Establishing rules that would allow public broadcasters to use a portion of the capacity on a preferred rate basis would be consistent with long-standing Congressional and Commission policies guaranteeing the American public access to public telecommunications services.<sup>1</sup>

**I. POTENTIAL USES BY PUBLIC BROADCASTING OF THE MSS ABOVE 1 GHz SERVICES**

**A. Educational Applications**

The MSS Above 1 GHz service has the potential for extending the reach of public television’s interactive instructional telecommunications services. From their very first days on the air, public broadcasters have worked in concert with educators to provide high-quality instructional programming.<sup>2</sup> More recently, public television has been in the forefront of

---

<sup>1</sup> “Public telecommunications service” means “noncommercial educational radio and television programs, and related noncommercial instructional or informational material that can be transmitted by electronic communications.” 47 U.S.C. §397(14).

<sup>2</sup> Today, instructional programming provided by public television is used in virtually every school district (14,700), in four of every five schools (64,000), by two of every three teachers (15 million teachers), and by three of every four students (29 million students). Seventy-two percent of public television licensees broadcast an average of five hours per day of

utilizing new technologies to extend educational services through interactive distance learning and on-line educational networks.

Currently, Satellite Educational Resources Consortium ("SERC"), a consortium of state departments of education and public television stations, transmits interactive distance learning courses to 5,000 students in high schools in 28 states by satellite and other media. During live presentations, students respond to questions and solve problems interactively by using a cordless classroom telephone or a keypad device hooked up to a classroom computer. The data recorded by the students on the keypad is collected by the computer and transmitted via a telephone hookup back to the central studio complex where the instructor can instantly see responses from students in schools throughout the country.<sup>3</sup>

Operating these existing interactive technologies depends upon wired classrooms and costly telephone hookups. Public broadcasters are always looking for new technologies that offer the potential for expanding and enhancing their interactive educational services. Wireless technologies, like the MSS Above 1 GHz technology, offer the potential to expand public broadcasting interactive services to schools, whose classrooms cannot be easily or economically wired, and to rural and remote communities that are difficult to reach with terrestrial telephone service. The ease with which wireless equipment can be used can also facilitate the use of interactive educational services at home by adults participating in public television's

---

instructional video programming for use in classrooms. This constitutes a total of about 250,000 instructional video hours per school year.

<sup>3</sup> The Kentucky Educational Television Network ("KETN"), one of the most active members in SERC, is currently providing interactive distance learning (through the keypad, computer, telephone method) to 1,200 schools located in rural areas throughout the State of Kentucky. This technology enables high school students, particularly those in rural areas, to participate in advanced courses, such as German, Latin, statistics and physics, taught by master teachers that, because of economies or logistics, would otherwise be unavailable. Further, KETN offers 25 college telecourses enrolling more than 7,000 students statewide, as well as adult literacy and GED study-at-home programs that enroll thousands annually. Additionally, KETN allows daycare workers to receive state-required year-round training, and offers a variety of in-service training programs for teachers and specialized services for state agencies and professional organizations.

adult literacy, GED and college degree programs or by children restricted to home learning because of illness or disability.

With the launch of AT&T's Telstar 401 satellite and the advent of digital compression technology, public television will soon be able to greatly expand its capacity to deliver educational services. PBS will be capable of delivering 80 channels of interactive educational services to local stations for delivery to home, schools, and institutions.<sup>4</sup> Telstar 401 also serves as the space segment for a very small aperture terminal (VSAT) network that will be capable of linking, through local public television stations, schools, libraries, universities and community institutions. Using this technology, PBS is building a nationwide on-line computer network, PBS ONLINE, that will offer students and teachers a wide range of noncommercial educational services, many of which will extend the educational value of PBS programs.<sup>5</sup>

The proposed MSS Above 1 GHz services can be used for that critical "last mile" connection of this educational network to schools, libraries, other community institutions and homes. Such services would be particularly important in those locations in which alternative telephonic services are not feasible, too costly, or not technologically capable of carrying high speed data and voice transmission.

#### **B. Other Public Telecommunications Applications**

MSS Above 1 GHz could also be used to enhance the outreach services currently provided by public broadcasting stations. Public broadcasting stations regularly serve as catalysts for individuals, citizen groups, civic organizations and businesses to come together to address issues of national

---

<sup>4</sup> In addition to developing its own new interactive educational services, PBS has been aggregating other educational, distance learning services on Telstar 401. Digital compression enables PBS to provide satellite transponder service for diverse educational services such as SERC, the National Technology University (NTU) and Satellite Communications for Learning (SCOLA).

<sup>5</sup> Projects currently under development include PBS ONLINE "media fusion" projects. In one project for example, video clips from the MACNEIL/LEHRER NEWSHOUR are sent via satellite then downloaded into students' computers. Facts and figures are also transmitted providing more information for further exploration.

and local concern. Recent outreach activities, for example, have focused on literacy, teenage drug use, child care, AIDS, awareness of the environment, women's health and other children and family issues. Stations coordinate broadcasts related to these issues with off-the-air outreach activities such as volunteer drives, hotlines, public events and citizen task forces. Technologies, like MSS Above 1 GHz, can facilitate the public's ability to participate in and benefit from such outreach efforts. Cost effective two-way interactive communications systems can, for example, facilitate recruiting volunteers for outreach activities; allow for immediate public discourse on community issues; and facilitate public access to a wide range of public service information (e.g. jobs, health and human services) offered by public television stations to their local communities.

**C. Need for Lower Cost "Last Mile" Connectivity**

It is difficult to analyze the potential cost savings of utilizing a wireless service, such as MSS Above 1 GHz, over other systems capable of carrying interactive voice and data communications. The types of wireless technologies that may emerge as predominant and the costs for equipment and service are far from clear. What is clear is that the telephone connection component of our current distance learning services is a substantial component of the cost of those services. Access at no cost or at an incremental cost rate to wireless services like MSS Above 1 GHz enhance public television's ability to extend its noncommercial interactive services to all communities in the country.

**II. PREFERRED ACCESS TO MSS ABOVE 1 GHz WOULD BE CONSISTENT WITH ESTABLISHED CONGRESSIONAL AND COMMISSION POLICIES**

**A. Congress Has Determined That Access To Public Telecommunications Programming Serves A Compelling Interest**

**1. The Public Telecommunications Act of 1992**

It is well-founded Congressional policy that public telecommunications services should reach as many citizens as possible through all feasible

broadcast and nonbroadcast technologies or systems. The Public Telecommunications Act of 1992, signed into law by President Bush on August 26, 1992, added §396(a)(9) to the Communications Act of 1934 (“Communications Act”), which states that “it is in the public interest for the Federal Government to ensure that all citizens of the United States have access to public telecommunications services through all appropriate available telecommunications distribution technologies . . . .”<sup>6</sup>

The legislative history of this statute is also very clear. The House Committee Report states Congress’ finding that access to public telecommunications services, through all available distribution technologies, is intended to advance the compelling governmental interest in increasing the amount of educational, informational, and public interest programming available to the public. The report states:

The Committee recognizes the tremendous expansion of telecommunications delivery systems made possible by technological advances. The Committee believes that the full potential of telecommunications as a means to address educational issues can be realized only if the public is provided access to public service programming through all distribution technologies—not just broadcast—that are available to them. To achieve this potential, the sound public policy of reserving broadcast channels for public television and radio should be extended to reserve capacity for public service programming on new distribution technologies.

The Committee believes that it is in the public interest to ensure that all citizens have access to public telecommunications services. The Committee strongly endorses a policy of broad access to the essential public services offered by public telecommunications, regardless of the technology used to deliver those services, in order to advance the compelling governmental interest in increasing the amount of educational, informational, and public interest programming available to the nation's citizens.<sup>7</sup>

---

<sup>6</sup> Pub. L. No. 102-356, 106 Stat. 949 (Aug. 26, 1992).

## 2. The Public Broadcasting Act of 1967 And Its Progeny

Congress has long advocated a strong federal policy of access to public telecommunications services. In the Public Broadcasting Act of 1967 ("1967 Act"), Congress found that "it is necessary and appropriate for the Federal Government to complement, assist, and support a national policy that will most effectively make public telecommunications services available to all citizens of the United States."<sup>8</sup>

Congress' emphasis on the nonbroadcast delivery of public telecommunications services is not new. From the inception of public broadcasting, Congress has recognized the importance of utilizing nonbroadcasting distribution mechanisms for the delivery of public service programming: Section 396(a)(2) of the Communications Act states, "[I]t is in the public interest to encourage the growth and development of nonbroadcast telecommunications technologies for the delivery of public telecommunications services." 47 U.S.C. §396(a)(2). Congress has continued to support access to public service programming through emerging nonbroadcast delivery technologies. The Definitions Section of the 1967 Act makes provision for the dissemination of noncommercial, educational programming over both broadcast and other than broadcast facilities. See 47 U.S.C. §§397(6) and (7).

In 1978, Congress adopted the Telecommunications Financing Act ("1978 Act") to assist in the funding of public telecommunications facilities, to "extend delivery of public telecommunications services to as many citizens of the United States as possible by the most efficient and economical means, including the use of broadcast and nonbroadcast technologies."<sup>9</sup> The Senate

---

<sup>7</sup> H.R. Rep. No. 363, 102d Cong., 1st Sess. 18 (1991) [emphasis added]. The Senate Report on this legislation contains similar language, see, e.g., S. Rep. No. 221, 102d Cong., 1st Sess. 7 (1991).

<sup>8</sup> 47 U.S.C. §396(a)(7). Congress has repeatedly reaffirmed its support for access to public service programming in its annual appropriations deliberations and every three years in its reauthorization of funding.

<sup>9</sup> 47 U.S.C. §390 (Emphasis added).

Report to the 1978 Act specifically anticipated “the breakthroughs that are likely in optical fiber,” among other technologies, and noted that “[i]t is in the public interest for public broadcasting to make the maximum use practicable of these new technologies.”<sup>10</sup>

### 3. The Cable Television Consumer Protection and Competition Act of 1992 and Other Statutes

Congress also adopted policies facilitating access for public service programming in additional distribution technologies. In the Cable Television Consumer Protection and Competition Act of 1992 (“Cable Act”), which became law on October 5, 1992, Congress has required cable systems to carry public television stations. In so doing, Congress recognized “a substantial governmental and First Amendment interest in ensuring that cable subscribers have access to local noncommercial educational stations which Congress has authorized, as expressed [in the Communications Act of 1934.]”<sup>11</sup>

Congress specifically acknowledged that its “must carry” provision was part of its broader policy of facilitating the delivery of public telecommunications services, and stated, “The government has a compelling interest in ensuring that [public telecommunications services] remain fully accessible to the widest possible audience without regard for the technology used to deliver these educational and informational services.”<sup>12</sup>

Significantly, Congress has also manifested concern that access by the American public to public television must be ensured in the common carrier context. Section 396(h)(1) of the Communications Act states, “Nothing in this Act, or in any other provision of law, shall be construed to prevent United

---

<sup>10</sup> Senate Committee on Commerce, Public Telecommunications Financing Act of 1978, S. Rep. No. 95-858, 95th Cong. 2d Sess. 6.

<sup>11</sup> The Cable Act, § 2(a)(7). The U. S. District Court for the District of Columbia found this must carry provision to be constitutional. This decision is currently on appeal to the Supreme Court in Turner Broadcasting v. FCC (No. 93-44).

<sup>12</sup> H.R. Rep. 682, 101st Cong., 2d Sess. 47 (1991) [emphasis added].

States common carriers from rendering free or reduced rate communications interconnection services for public television . . . ." 47 U.S.C. §396(h)(1).

**B. Access to Public Telecommunications Services Is Also  
Supported by Commission Policy**

Commission policies have always resonated with the Congressional mandates discussed above. Beginning in 1952, the Commission, recognizing the unique and important services that such television programming could offer, reserved 242 channels on the Ultra High Frequency ("UHF") spectrum (Channels 14-83) for educational television.<sup>13</sup> Since then, the Commission has defended these reservations against efforts by commercial broadcasters to de-reserve them,<sup>14</sup> and it has reserved additional channels to further the reach of public television service,<sup>15</sup> to provide better picture quality,<sup>16</sup> and to permit the formation of networks of noncommercial educational stations.<sup>17</sup>

---

<sup>13</sup> Television Assignments, Sixth Report and Order, 41 F.C.C. 148 (1952).

<sup>14</sup> See, e.g., Television Assignments in New Smyrna Beach, Florida 50 R.R.2d 1714 (1982); Television Assignments in Houston, Texas, 50 R.R.2d 1420 (1982); Table of Assignments in Ogden, Utah, 26 F.C.C.2d 142 (1970), recon. denied, 28 F.C.C.2d 705 (1971); Channel Assignments in Hamilton, Alabama, 21 R.R. 1577 (1961); Channel Assignments in Longview-Denton, Texas, 17 R.R. 1549 (1958); recon. denied, 17 R.R. 1552a (1959); Channel Assignments to Des Moines, Iowa, 14 R.R. 152d (1956), recon. denied, 14 R.R. 1528 (1956).

<sup>15</sup> See, Television Channel Assignment at Anchorage, Alaska, 68 R.R.2d 1121 (1990); Television Channel Assignment at Victoria, TX, 52 R.R.2d 1508 (1983); Television Channel Assignment at Seaford, Del., 43 R.R.2d 1551 (1978); Television Channel Assignment at Mount View, Ark., 38 R.R.2d 1298 (1976); Television Channel Assignment at Eufaula, Okla., 35 R.R.2d 1039 (1975); Television Channel assignment at Booneville, Miss., 27 R.R.2d 246 (1973); Television Channel Assignment at Parson, Kansas, 23 R.R.2d 1707 (1972); Television Channel Assignment in the Virgin Islands, 20 R.R.2d 1659 (1970) (mileage separation requirements with co-channels in Puerto Rico waived; the most important factor for waiver is that the channels were for educational use); Television Channel Assignments at Las Cruces, New Mexico, 14 R.R.2d 1518 (1967) (18 UHF channels assigned to Hawaii, with nine reserved for noncommercial educational use); Television Channel Assignment at Eagle Butte, S.D., 10 R.R.2d 1767; Television Channel Assignment in Staunton, VA, 5 F.C.C.2d 537 (1966).

<sup>16</sup> Television Channel Assignments at Nashville, Tenn. 26 R.R.2d 1667 (1973).

<sup>17</sup> Television Channel Assignments at McGill, Nevada and Richfield, Utah, 24 R.R.2d 1855 (1972).

The Commission has committed to carry over its channel reservation policy in its allotment of high definition television (HDTV) channels to broadcasters. It has committed to reserve noncommercial educational HDTV channels for existing public broadcasters and to preserve vacant noncommercial allotments in its allotment plan.<sup>18</sup> In so doing, the Commission recognized "the important role noncommercial educational stations play in providing quality programming to the public and the financial constraints they face in building and running their stations."<sup>19</sup>

---

<sup>18</sup> Second Report and Order/Further Notice of Proposed Rulemaking in MM Docket No. 97-268 (released May 8, 1992); Third Report and Order/Further Notice of Proposed Rulemaking in MM Docket No. 97-268 (adopted Sept. 17, 1992).

<sup>19</sup> Second Report at ¶ 36. The Commission is currently reconsidering its decision not to require telephone companies to provide video dialtone services for the carriage of public telecommunications service at no charge or at reduced rates. Second Report and Order, Recommendation to Congress, and Second Further Notice of Proposed Rule Making, CC Docket No. 87-266, 7 FCC Rcd 5781 (1992) (Commissioners Quello and Duggan dissenting in part over denial of access for free television service).

### III. CONCLUSION

In sum, Congress and the Commission have consistently provided policy and regulatory support for the distribution of public service programming via broadcast, HDTV, cable, and common carrier technologies. The Commission's proposal to set aside a portion of the MSS Above 1 GHz services for public telecommunications uses is consistent with well established Congressional and Commission policies. No or low cost access to services such as MSS Above 1 GHz could provide public television stations with opportunities to expand the interactive capabilities of its educational and outreach services and reach unserved and underserved pockets of the American public.

Respectfully submitted,

ASSOCIATION OF AMERICA'S PUBLIC  
TELEVISION STATIONS

By: Marilyn Mohrman-Gillis  
Marilyn Mohrman-Gillis  
General Counsel  
Lonna M. Thompson  
1350 Connecticut Avenue, N.W.  
Suite 200  
Washington, D.C. 20036  
(202) 887-1700

Paula Jameson (mm-6)  
Paula A. Jameson  
General Counsel  
Gregory Ferenbach  
Assistant General Counsel  
PUBLIC BROADCASTING SERVICE  
1320 Braddock Place  
Alexandria, Virginia 22314  
(703) 739-5063